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## Teaching Letter Sounds in Preschool, Kindergarten, and Special Education: Five Strategies to Ease the Memory Burden

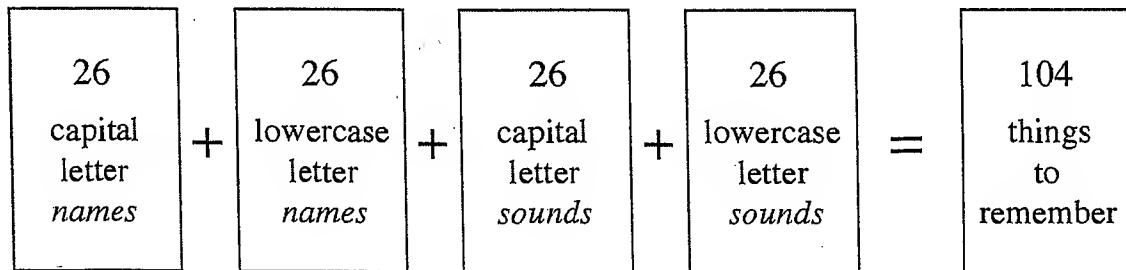
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### Introduction

Teaching students the most frequent sounds of the alphabet letters is the first crucial step in good phonics instruction. But beginning letter and sound lessons, especially if poorly taught or too rapidly paced, can be overwhelming and confusing for some young children and struggling readers. How can we simplify the cognitive task for such students? This paper presents five strategies that can make mastering letter sounds easier for preschoolers, kindergartners, and struggling readers (including students with developmental delays and specific learning disabilities). Non-reading second language learners can also benefit from this direct and highly comprehensible core method. Although many students do not require the streamlined approach offered here, teachers who seek to increase instructional efficiency, those who wish to accelerate early reading for young children, and those who work with students who demonstrate memory deficits, can employ these strategies to reduce what can be a significant cognitive burden associated with traditional and comprehensive beginning phonics instruction.

Do letters and sounds constitute a significant cognitive burden? Trying to learn (and teach) letters and sounds can be crushing, slow, and/or tortuous, depending on the student. Although there are only twenty-six letters in the English alphabet, teachers of reading actually expect learners to commit to memory far more than just twenty-six bits of information; most students when first taught about letters and sounds are presented with 104 basic associations or things to remember. Does this specific statistic sound farfetched? Let us remember that in English there are 26 capital letters and 26 lowercase letters. So most teachers diligently strive to teach 26 capital letter names, 26 lowercase letter names, 26 capital letter sounds, and 26 lowercase letter sounds:

Figure 1.  
*The Cognitive Burden of Letter and Sound Instruction*



To ease the memory burden on young and/or struggling students or special populations, and to help learners get on the road to reading sooner, we recommend 1) strategic planning that greatly reduces the overall amount of relatively less-important material that needs to be learned (and initially taught) and 2) teaching the remaining nucleus of highly-important material in the most vivid, meaningful, engaging fashion possible.

## 1) Teach Letter Sounds (not Letter Names)

In many schools, prekindergarten and kindergarten students are carefully taught the names of the alphabet letters first—so this suggestion to *not* teach the letter names will make little sense to some teachers. But perhaps you have known students who can only remember letter names and who struggle terribly to learn letter sounds? The unfortunate result of over-learning the names of the alphabet letters is that, in some cases the psychological process of *negative transfer* actually inhibits students from learning the sounds of the letters later on. For example, a student who has solidly memorized that the symbol, *t*, (letter *t*) is called “tee,” will consistently retrieve “tee” from memory every time he or she sees the shape of the letter. The following year, the student’s phonics-savvy teacher may struggle mightily trying to get the student to essentially unlearn or in a way forget “tee” and instead recall/think/read/say the consonant sound /t/ when he or she is shown the letter. It can be a painful uphill battle to help some students learn letter sounds when they have a severe case of *ABC-Letter-Names-on-the-Brain*. (Remembering the names of the alphabet letters will allow students to chant out the spelling of words later on in spelling bees, but mastering the names of the letters does not directly help students sound out words and read. Knowing the sounds of the letters, and eventually the sounds of spelling patterns does though directly allow students to sound out words and read.)

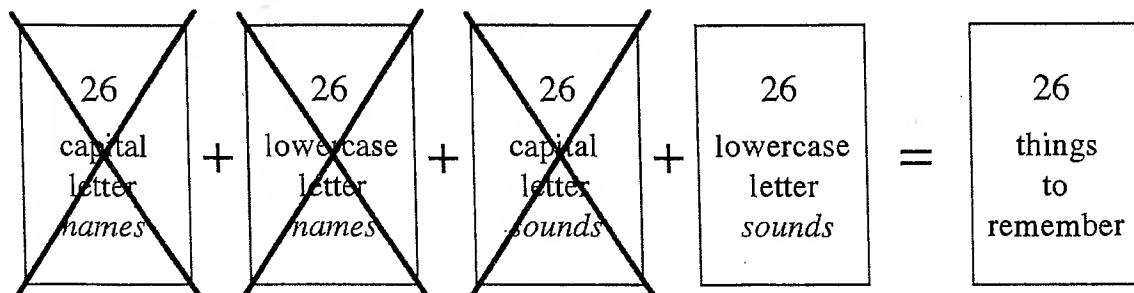
So, to minimize confusion and aid simple recall of the all-important letter sounds, it is recommended that teachers consider skipping letter naming lessons altogether and move directly to teaching the letter sounds. For instance, a teacher might point to the letter *t* and explain “This makes the /t/, /t/, /t/ sound like we hear at the beginning of /t/, /t/ tiger,” instead of “The name of the letter is ‘tee,’ and the sound is /t/.” (Note: it must be emphasized that highly engaging multisensory teaching strategies must accompany such letter sound explanations. See subsequent strategies outlined in this document). Of course, it is unrealistic for teachers to attempt to never use letter names, but one rule of thumb is that teachers utilizing this strategy should strive to refer to letters by their sounds, rather than their names, perhaps 90% of the time.

## 2) Focus on Lowercase Letters (and their Sounds) not Capital Letters

When readers encounter words in text, are most of the letters encountered capital letters or lowercase letters? Most sentences have just one capital letter, the first letter of the first word at the beginning of the sentence, and the rest of the words in the sentence are usually composed of all lowercase letters. So the lowercase letters are much, much more important for reading and for teaching. Unfortunately, many prekindergarten teachers focus on the capital letters and teach children to write with capital letters exclusively, a regrettable practice. For beginning reading and blending of three letter consonant-vowel-consonant words like cat, red, sit, dog, and fun, it is critical for students to be able to recognize the lowercase letter shapes and to swiftly and accurately recall the associated (most frequent) sounds.

a b c d e f g h i j k l m n o p q r s t u v w x y z

By employing both the first and second strategies listed above, we can reduce the number of associations students need to remember from 104 to a manageable 26. We can reduce the cognitive burden by 75%.



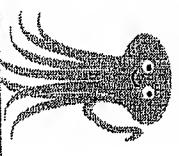
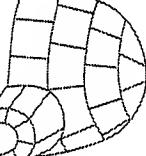
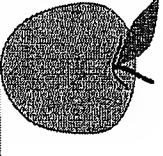
### 3) Provide Initial Position Exemplars for the Short Vowels

Which picture will be more helpful for helping a child remember the short *a* sound, a picture of an apple or a picture of a lamb? Many teachers and phonics experts find that a picture of an apple will work better as a cognitive anchor because the short /a/ sound is more clearly heard and emphasized at the beginning of the word. Also, since we tend to present students with initial position exemplars for all the other letters in the alphabet, students are generally better at hearing and remembering target sounds that occur at the beginning of example words. Beware that at least two widely adopted reading programs in the United States use potentially perplexing medial, or middle, position vowel exemplars, rather than more obvious initial position exemplars. For example, in *SRA Open Court Reading*, children are shown a pig letter-sound picture card and taught, "Pickles the pig says /i/ /i/ /i/." Unfortunately, such vowel-in-the-middle-of-the-word examples sometimes fail to make sense to students, especially very young learners, second language learners, struggling students, and students with learning disabilities.

The solution is to provide students with initial position short vowel exemplars. Students who know at least one short vowel sound and several consonant sounds will be ready to start learning how to blend sounds into little words. Failure to master the all-important short vowel sounds is associated with failure to learn how to blend small words sound-by-sound, an immensely important first step in learning how to read. When students first begin to practice blending sounds, they should be presented with many short three-letter consonant-vowel-consonant words, such as *cat*, *hen*, *win*, *fog*, and *sun*. Remember, when a vowel is between two consonants, it almost always makes what we call its short vowel sound. Students must learn each pesky short vowel sound to the point of mastery to enable skillful early blending practice with c-v-c words.

This new short vowel sound practice page, below, is designed for teacher-student echo reading. Teachers may reproduce it for classroom use only. Invite students to "read the short vowel sounds" responsively as you slowly and demonstrate voicing the sounds line-by-line.

Let's read the short vowel sounds.  
Repeat after me.

|   |   |   |  |   |
|---|---|---|--|---|
| <b>u</b><br> | <b>o</b><br> | <b>i</b><br> | <b>e</b><br> | <b>a</b><br> |
| <b>u</b><br> | <b>o</b><br> | <b>i</b><br> | <b>e</b><br> | <b>a</b><br> |

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#### 4) Write the Sounds

As students learn letter sounds, they should have lots of opportunity to also “write the sounds.” Ideally, students should be taught to voice the sound of each letter as they print the letter shapes. Guided writing, copying, and tracing of letters while saying the letter sounds works well to cement sound-symbol correspondences in learners’ long-term memories. Since readers need to be most familiar with lowercase letters, teachers seeking to ready their students for reading success will devise frequent lessons that help students to practice “writing the sounds” with lowercase letters.

One of the very best kinds of guided writing is phonics dictation, which students usually enjoy as a fun, engaging writing game. Students participate in phonics dictation by writing what the teacher dictates aloud. Provide students with paper/pencils, chalkboards/chalk, white boards/markers, or magic erase boards. Say:

- “Get ready to write what you hear. Don’t worry about making mistakes, just do the best you can.
- This is a practice activity, not a test.”
- “Write the letter that says /s/,” (for example).
- “Remember, it’s good to say the sound as you write it.”
- “Now look up here and check your work.” (Show the properly formed letter. It is important to provide immediate visual and auditory feedback after each letter.)
- “Fix it if you make a mistake.”

#### 5) Emphasize Multisensory, Hands-On, Engaging Teaching Strategies

##### Use Object Boxes to Teach Letter Sounds

Letter/Sound box lessons are perfect for pre-kindergarten, kindergarten, and struggling readers who fail to demonstrate mastery on letter/sound assessments. You need to collect an array of small toys, real-world objects, and interesting pictures and sort these into 26 boxes, each box labeled with an alphabet letter. Inexpensive plastic shoeboxes are perfect for this purpose and are available at local bargain stores. You will use these object boxes to explicitly teach students the primary sounds of the alphabet letters. Students will get a chance to see, hear, say, and hold exemplar objects that start with the most frequently occurring sounds of the alphabet letters.

When you teach letter/sound correspondence with a Letter/Sound Box, give each learner a lowercase sample letter to hold. For example, when teaching the letter *Mm*, each student would hold a card with an *m* on it:



Introduce the items in your box and have the students repeat the words after you say them. Then say,

- 1) *What sound do you hear at the beginning of “monkey?”*
- 2) *Show me the letter that makes the /m/ sound.*

Each student should also get a chance to choose something out of the box, hold it, and answer the two questions listed above.

Suggested items for your Letter/Sound boxes:

- a box: astronaut, ambulance, alligator, apple, ant, abacus, antelope, acrobat
- b box: baseball, book, bag, boat, bottle, butterfly, belt, bib, bubbles, box, band-aid, bowl, bone, beads,
- c box: cookies, calf, clock, cotton, crayon, clay, car, cow, cone, candle, cat, candy, camera, cup
- d box: dinosaur, disc, dog, die/dice, duck, dictionary, diaper, dish, dollar, doorknob, dime, drum
- e box: elf, elephant, exit sign, envelope, elbow, emperor penguin, elevator, egg
- f box: feather, fabric, fake fur, flower, flamingo, frog, fish, foil, flag, fairy, flashlight, fan

g box: gorilla, gold, gum, grater, gift, globe, goat, glove, glue, glass, glasses, gumdrop, ghost  
 h box: hammer, hook, hanger, heart, helicopter, helmet, hen, hippo, horn, horse, hat, honey  
 i box: insect, igloo, initials, invitation, inchworm, infant, iguana, illustrations  
 j box: jam, jar, jeans, jellybeans, jewelry, jug, journal, jack-in-the-box, jack-o-lantern, juice  
 k box: king, kernels, kimono, kid, key, kaleidoscope, kangaroo, kite, kilt, kitten, kiwi  
 l box: lion, licorice, lace, lunch box, lollipop, lock, ladybug, lipstick, lemon, lime, leaves  
 m box: magnet, mouse, marble, mix, money, monkey, medal, mouth, marble, mustard, mitt, map  
 n box: nail, napkins, number 9, nickels, net, note, newspaper, nest, noodles, necktie, nose  
 o box: ostrich, otter, olives, octagon, octopus, ox, officer, operation, opposites (examples)  
 p box: pig, purse, paint, pen, pencil, pear, parrot, pepper, popcorn, pacifier, panda, paper  
 q box: queen, quarter, quintuplets, quilt,  
 r box: rabbit, rattle, radish, ring, rainbow, rose, ruler, raisins, rhino, ribbon, robot, rice, rock  
 s box: salt, stapler, spoon, soup, star, sun, socks, spaghetti, snake, scissors, soap, stamp  
 t box: ticket, turtle, turkey, telephone, tiger, towel, twins, toothbrush, triangle, tape, tree, timer  
 u box: umbrella, umpire, undershirt, upholstery, up (arrow/finger pointing up), underwater  
     (scene), unhappy (face)  
 v box: vase, vest, valentine (card), van, video (cassette), veil, vitamins, volcano, violin, velvet  
 w box: window, wagon, wallet, wolf, wood, walrus, windmill, whisk, wig, water, watch, whale  
 x box: ox, box, fox, six, mix, ax, fax, sax, tax, wax, Trix, Ajax,  
 y box: yams, yogurt, yo-yo- yarn, yellow crayon, yardstick, Yellow Pages, yak, yucky/yummy  
 z box: zebra, zig zag, zero, zipper, zoo, zucchini,

### Make Alphabet Puppets

Prekindergarten and kindergarten teachers can immediately capture student attention by using puppets to introduce each new letter sound. But don't keep the puppets to yourself! Plan to allow each student to make a puppet to take home and keep. (Paper bag puppets are better than stick puppets because their mouths move and they seem to really *talk*.) There are a wide variety of reproducible ABC puppet patterns available in teacher supply stores or on the Internet. Make sure each puppet has its associated lowercase letter marked prominently somewhere on it. You (or your students) will want to name the puppets appropriately. My alphabet puppets are named:

|                    |                    |                           |
|--------------------|--------------------|---------------------------|
| Anna the alligator | Jill the jellyfish | Tina the tiger            |
| Bob the bear       | Kevin the king     | Undie underwear           |
| Connie the cow     | Lolly the leopard  | Vic the vulture           |
| Danny the dinosaur | Mack the mouse     | The wicked wolf           |
| Eddie the elephant | Ozzie the octopus  | X-man (says /ks/)         |
| Fred the frog      | Pat the pig        | Yolanda the Yellow jacket |
| Gus the gopher     | Quinn the queen    | Zip the Zebra             |
| Hanna the horse    | Ricky the rabbit   |                           |
| Icky the insect    | Sammy the snake    |                           |

Each time students make a new puppet, they will have fun inventing and sharing silly sentences that feature lots of words that start with the focus sound. Alphabet puppets serve as vibrant memory cues for students and can be displayed around the room or on a bulletin board. At the beginning of the year, send a note home to parents and ask them to designate a box, bag, drawer, wall, or shelf for the puppets, as students will want to keep and collect them over time.

## Teach Kinesthetic Memory Cues for Letter Sounds

Do teach students gestures or hand movements to prompt recall of particular sounds. For example, *SRA Open Court Reading* suggests teaching, “/f/, /f/, /f/ fan,” while making a continuous circular hand movement like an electric fan. The *Jolly Phonics* website, [www.jollylearning.co.uk](http://www.jollylearning.co.uk), offers the following suggested hand movements:

- s Weave hand in an s shape, like a snake, and say ssssss
- a Wiggle fingers above elbow as if ants crawling on you and say a, a, a.
- t Turn head from side to side as if watching tennis and say t, t, t.
- i Pretend to be a mouse by wriggling fingers at end of nose and squeak i, i, i.
- p Pretend to puff out candles and say p, p, p.
- n Make a noise, as if you are a plane - hold arms out and say nnnnnn.
  
- c and k Raise hands and snap fingers as if playing castanets and say ck, ck, ck.
- e Pretend to tap an egg on the side of a pan and crack it into the pan, saying eh, eh, eh.
- h Hold hand in front of mouth panting as if you are out of breath and say h, h, h.
- r Pretend to be a puppy holding a piece of rag, shaking head from side to side, and say rrrrrr.
- m Rub tummy as if seeing tasty food and say mmmmmm.
- d Beat hands up and down as if playing a drum and say d, d, d.
  
- g Spiral hand down, as if water going down the drain, and say g, g, g.
- o Pretend to turn light switch on and off and say o, o; o, o
- u Pretend to be putting up an umbrella and say u, u, u.
- l Pretend to lick a lollipop and say l l l l l l.
- f Let hands gently come together as if toy fish deflating, and say f f f f f f.
- b Pretend to hit a ball with a bat and say b, b, b.
  
- j Pretend to wobble on a plate (like jelly) and say j, j, j.
- z Put arms out at sides and pretend to be a bee, saying zzzzzz.
- w Blow on to open hand, as if you are the wind, and say wh, wh, wh.
- v Pretend to be holding the steering wheel of a van and say vvvvvv.
- y Pretend to be eating a yogurt and say y, y, y.
- x Pretend to take an x-ray of someone with an x-ray gun and say ks, ks, ks.

## Make Letter Necklaces, Signs, or Hats

Make large letter necklaces, signs, or hats to allow students to impersonate a letter. Have students come up to the front of the room and make their sounds. This very adaptable technique can be used to complement a wide variety of phonics lessons.

### Great Summer Reading (Seriously)

Five good books to read from cover to cover

- ★ *Why Johnny Can't Read* by Rudolf Flesch (The classic must-read polemic from 1955)
- ★ *The Great Debate* by Jeanne S. Chall (Fabulous seminal research report from 1967, but out-of-print. Available at the library.)
- ★ *Beginning to Read: Thinking and Learning About Print* by Marilyn Adams (Presents fascinating empirical data in digestible form. An awesome and heroic tome.)
- ★ *Teaching and Assessing Phonics* by Jeanne S. Chall and Helen M. Popp (Practical)
- ★ *Phonics from A to Z* by Wiley Blevins (Practical and info packed)